

**IN THE CLAIMS:**

Claims 1-14 and 16 are currently amended, Claims 20-28 are cancelled, Claims 15 and 17-19 remain in this application, and Claims 29-38 are new.

1           1.       (Amended) A semiconductor laser device comprising:  
2                   a plurality of laser light oscillators that each emit a laser beam from an outlet  
3 thereof; and  
4                   ~~an optical element~~ a diffraction grating that at least partially reflects, scatters, or  
5 transmits a laser beam that is oscillated in at least one of the laser light oscillators and is emitted  
6 from an outlet thereof, so that a portion of the laser beam is incident on at least one of the other  
7 laser light oscillators to enable phase locking.

1           2.       (Amended) The semiconductor laser device according to Claim 1,  
2                   wherein the plurality of laser light oscillators are included in a semiconductor  
3 laser array element, and  
4                   the ~~optical element~~ diffraction grating is disposed so as to face the outlet of the at  
5 least one of the laser light oscillators, the ~~optical element~~ diffraction grating being a translucent  
6 member that (a) partially transmits the laser beam and (b) partially reflects or scatters the laser  
7 beam so that a portion of the laser beam is directed to the at least one of the other laser light  
8 oscillators.

1           3.       (Amended) The semiconductor laser device according to Claim 1,  
2                   wherein the plurality of laser light oscillators are included in a plurality of  
3 semiconductor laser array elements in such a manner that at least two laser light oscillators are

4 included in each laser light oscillator in an array, the plurality of semiconductor laser array  
5 elements being stacked up, and  
6 the ~~optical element~~ diffraction grating is disposed so as to face the outlet of the at  
7 least one of the laser light oscillators included in one of the semiconductor laser array elements,  
8 the ~~optical element~~ diffraction grating being a translucent member that (a) partially transmits the  
9 laser beam and (b) partially reflects or scatters the laser beam so that a portion of the laser beam  
10 is directed to the at least one of the other laser light oscillators included in the other  
11 semiconductor laser array elements.

1 4. (Amended) The semiconductor laser device according to Claim 1,  
2 wherein a reflecting optical path, a scattering optical path, and a transmitting  
3 optical path of the ~~optical element~~ diffraction grating are directed to the outlet of the at least one  
4 of the other laser light oscillators, thereby the portion of the laser beam is directed in a vicinity of  
5 an optical axis of the laser beam at the outlet of the at least one of the other laser light oscillators.

1 5. (Amended) The semiconductor laser device according to Claim 2,  
2 wherein the ~~optical element~~ diffraction grating is a flat plate having a main  
3 surface that is either a flat plane or a scabrous plane, the main surface being an incidence plane  
4 of the laser beam, and the optical element partially reflects or scatters the laser beam on the main  
5 surface.

1 6. (Amended) The semiconductor laser device according to Claim 3,  
2 wherein the ~~optical element~~ diffraction grating is a flat plate having a main  
3 surface that is either a flat plane or a scabrous plane, the main surface being an incidence plane

4 of the laser beam, and the ~~optical element~~ diffraction grating partially reflects or scatters the laser  
5 beam on the main surface.

1 7. (Amended) The semiconductor laser device according to Claim 2,  
2 wherein the ~~optical element~~ diffraction grating is a flat plate which includes a- the  
3 diffraction grating on a main surface thereof, the main surface being an incidence plane of the  
4 laser beam, and the ~~optical element~~ flat plate partially diffracts the laser beam on the diffraction  
5 grating at a predetermined angle when the ~~optical element~~ diffraction grating partially reflects  
6 the laser beam.

1 8. (Amended) The semiconductor laser device according to Claim 3,  
2 wherein the ~~optical element~~ diffraction grating is a flat plate which includes a  
3 diffraction grating on a main surface thereof, the main surface being an incidence plane of the  
4 laser beam, and the ~~optical element~~ flat plate partially diffracts the laser beam on the diffraction  
5 grating at a predetermined angle when the ~~optical element~~ diffraction grating partially reflects  
6 the laser beam.

1 9. (Amended) The semiconductor laser device according to Claim 7,  
2 wherein the ~~optical element~~ diffraction grating directs -1st order diffracted light  
3 and +1st order diffracted light generated when the laser beam is partially diffracted, so as to be  
4 respectively incident on laser light oscillators that are adjacent to the at least one of the laser light  
5 oscillators from which the laser beam has been emitted.

1           10.    (Amended) The semiconductor laser device according to Claim 8,  
2                   wherein the ~~optical element~~ diffraction grating directs -1st order diffracted light  
3   and +1st order diffracted light generated when the laser beam is partially diffracted, so as to be  
4   respectively incident on laser light oscillators that are adjacent to the at least one of the laser light  
5   oscillators from which the laser beam has been emitted.

1           11.    (Amended) The semiconductor laser device according to Claim 2,  
2                   wherein the ~~optical element~~ diffraction grating has been subjected to hologram  
3   processing so as to function as a hologram to condense or collimate a portion of the laser beam  
4   that has transmitted therethrough.

1           12.    (Amended) The semiconductor laser device according to Claim 3,  
2                   wherein the ~~optical element~~ diffraction grating has been subjected to hologram  
3   processing so as to function as a hologram to condense or collimate a portion of the laser beam  
4   that has transmitted therethrough.

1           13.    (Amended) The semiconductor laser device according to Claim 2,  
2                   wherein the plurality of laser light oscillators each have two outlets, from one of  
3   which the laser beam is emitted to be reflected, scattered, or diffracted by the optical element,  
4   and from the other of which the laser beam is emitted from the semiconductor laser array  
5   element,  
6                   the ~~optical element~~ diffraction grating is disposed so as to face the one outlet of  
7   each of the laser light oscillators, and reflects, scatters, or diffracts the laser beam.

1           14.    (Amended) The semiconductor laser device according to Claim 3,  
2                    wherein the plurality of laser light oscillators each have two outlets, from one of  
3   which the laser beam is emitted to be reflected, scattered, or diffracted by the ~~optical element~~  
4   diffraction grating, and from the other of which the laser beam is emitted from the semiconductor  
5   laser array element,  
6                    the ~~optical element~~ diffraction grating is disposed so as to face the one outlet of  
7   each of the laser light oscillators, and reflects, scatters, or diffracts the laser beam.

1           15.    (Original) The semiconductor laser device according to Claim 3,  
2                    wherein the plurality of semiconductor laser array elements respectively include  
3   substrate layers that have been cut out of one semiconductor wafer.

1           16.    (Amended) The semiconductor laser device according to Claim 2,  
2                    wherein the plurality of ~~semiconductor laser array elements each have~~ oscillators  
3   are in a single array and each has a real refractive index guided self-aligned structure.

1           17.    (Original) The semiconductor laser device according to Claim 3  
2                    wherein the plurality of semiconductor laser array elements each have a real  
3   refractive index guided self-aligned structure.

1           18.    (Original) A multiple wavelength laser light emitting apparatus, comprising:  
2                    a plurality of semiconductor laser devices that each emits a plurality of laser  
3   beams, wavelengths of the laser beams emitted from each semiconductor laser device being  
4   different from wavelengths of the laser beams emitted from a different semiconductor laser  
5   device; and

6 an optical element that condenses a plurality of laser beams emitted from each of  
7 the plurality of semiconductor laser devices at a predetermined position,  
8 wherein at least one of the semiconductor laser devices is the semiconductor laser  
9 device described in Claim 1.

1 19. (Original) The multiple wavelength laser light emitting apparatus according to  
2 Claim 18, further comprising:

3 an adjusting means for adjusting a position at which the plurality of laser beams  
4 emitted from each of the plurality of semiconductor laser devices are condensed, by driving the  
5 optical element;

6 a laser driving means for selecting a semiconductor laser device that emits laser  
7 beams each having a designated wavelength, out of the plurality of semiconductor laser devices,  
8 and driving the selected semiconductor laser device; and

9 a control means for controlling the adjusting means in accordance with a  
10 wavelength of the laser beams to be emitted.

1 20. (Cancelled)

1 21. (Cancelled)

1 22. (Cancelled)

1 23. (Cancelled)

1 24. (Cancelled)

1 25. (Cancelled)

1 26. (Cancelled)

1 27. (Cancelled)

1 28. (Cancelled)

1 29. (New) A semiconductor laser device comprising;

2 a plurality of laser light oscillators that each emit a laser beam from a respective  
3 outlet; and

4 an optical element that at least partially directs a sufficient portion of a laser beam  
5 from the plurality of laser light oscillators to enter another of the plurality of laser light  
6 oscillators to enable a phase locking of the respective laser light oscillators, when the respective  
7 outlets of the laser light oscillators are aligned with the optical element to enable each one of the  
8 laser light oscillators to receive at least a portion of the laser beam from another of the plurality  
9 of laser light oscillators to enable a phase locking of each one of the plurality of laser light  
10 oscillators.

1 30. (New) The semiconductor laser device according to Claim 29 wherein the optical  
2 element is a diffraction grating.


1 31. (New) The semiconductor laser device according to Claim 29 wherein the optical  
2 element is a flat plate.

1 32. (New) The semiconductor laser device according to Claim 29 wherein the optical  
2 element includes a hologram to collimate portions of the laser beams transmitted therethrough.

1           33.   (New) The semiconductor laser device according to Claim 29 wherein the laser  
2 light oscillators each have a refractive index guided self-aligned structure and are arranged  
3 parallel to each other.

1           34.   (New) The semiconductor laser device according to Claim 33 wherein each of  
2 the laser light oscillators include GaInP/AlGaInP quantum well active layers.

1           35.   (New) The semiconductor laser device according to Claim 29 wherein the optical  
2 element directs between 10% to 30% of the incident laser beam to enter other laser light  
3 oscillators.

 1           36.   (New) The semiconductor laser device according to Claim 29 wherein the optical  
2 element directs the sufficient portion of the laser beam at an optical axis of another laser light  
3 oscillator.

1           37.   (New) The semiconductor laser device according to Claim 29 wherein the optical  
2 element is a diffraction grating with vertical and horizontal grooves that cross each other.

1           38.   (New) The semiconductor laser device of Claim 29 wherein the plurality of laser  
2 light oscillators are arranged in a plurality of arrays, each array includes a plural number of laser  
3 light oscillators, the arrays are vertically stacked and the optical element partially directs a  
4 sufficient portion of a plurality of laser beams from each array to enter laser light oscillators of  
5 other stacked arrays to enable a phase locking of all of the laser light oscillators.

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